



CONTENTS OF VOLUME 12

	Vol. 12—January 1934—No. 1	
RP.		Page
	DEVELOPMENT OF STANDARD-FREQUENCY TRANSMITTING SETS. L. Mickey and A. D. Martin	1
631.	DATA ON THE SPECTRAL ERYTHEMIC REACTION OF THE UNTANNED	
	HUMAN SKIN TO ULTRAVIOLET RADIATION. W. W. Coblentz and R. Stair	13
632.	STUDIES OF THE IONOSPHERE AND THEIR APPLICATION TO RADIO	
200	TransmissionS. S. Kirby, L. V. Berkner, and D. M. Stuart	15
	REACTIONS OF LITHOGRAPHIC PAPERS TO VARIATIONS IN HUMIDITY AND TEMPERATURE	53
634.	A GLASS ELECTRODE POTENTIOMETER SYSTEM FOR THE DETERMINA-	
	TION OF THE PH VALUES OF WEAKLY BUFFERED SOLUTIONS SUCH AS NATURAL AND TREATED WATERS.	
	John O. Burton, Harry Matheson, and S. F. Acree	67
635.	ANALYSIS OF WOOL-COTTON TEXTILES Ralph T. Mease and Daniel A. Jessup	75
636.	A NEW CATHODE-RAY OSCILLOGRAPH AND ITS APPLICATION TO THE	10
	STUDY OF POWER LOSS IN DIELECTRIC MATERIALS.	07
637	Forest K. Harris Influence of Neighboring Structures on the Wind Pressure	87
	on Tall Buildings	103
638.	Soil-Corrosion Studies, 1932. Rates of Loss of Weight and Pitting of Ferrous and Nonferrous Specimens and Metallic	
	PROTECTIVE COATINGSK. H. Logan and R. H. Taylor	119
	Vol. 12—February 1934—No. 2	
639.	A METHOD OF ADJUSTING THE TEMPERATURE COEFFICIENT AND RESISTANCE OF LOW-VALUED RESISTANCE STANDARDS.	
	Frank Wenner and James L. Thomas	147
640.	WEAR OF CARPETSHerbert F. Schiefer and Richard S. Cleveland	155
041.	A GAMMA-RAY IONIZATION CHAMBER FOR USE WITH A DIRECT CURRENT AMPLIFIER. L. F. Curtiss	167
642.	A SEDIMENTATION METHOD FOR THE DETERMINATION OF THE PAR-	
	TICLE SIZE OF FINELY DIVIDED MATERIALS (SUCH AS HYDRATED	173
643.	LIME) Dana L. Bishop A CRITICAL TEST FOR THE PURITY OF GASES Martin Shepherd	185
644.	FLOW IN ROOF GUTTERS	193
646.	OLIVINE AS A REFRACTORY	215
	PLATESB. H. Carroll, Donald Hubbard, and C. M. Kretchman	223
647.	A PORTABLE ULTRAVIOLET INTENSITY METER, CONSISTING OF A	
	BALANCED AMPLIFIER, PHOTOELECTRIC CELL, AND MICROAM- METER	231
648.	NOTE ON PHASE EQUILIBRIA IN THE SYSTEM NA2O-TIO2.	239
649.	Edward W. Washburn and Elmer N. Bunting Comparative Efficiencies of Various Dehydrating Agents	239
	Used for Drying Gases (A Survey of Commercial Drying	0.44
650.	AGENTS) J. H. Bower Some Physical Properties of Platinum-Rhodium Alloys.	241
	J. S. Acken	249
051.	A FRACTIONATING COLUMN WITH FRITTED GLASS PLATES S. T. Schicktanz	259
652	D. I. Delection and	200
	FILTERS FOR PRODUCING THE COLOR OF THE EQUAL-ENERGY STIMU- LUS————————————————————————————————————	263

	Vol. 12—March 1934—No. 3	Page
653.	STATISTICAL INVESTIGATION OF THE UNIFORMITY OF GRADES OF 1,000 LOVIBOND RED GLASSES	269
654.	A METHOD FOR THE SEPARATION OF RUTHENIUM FROM PLATINUM, PALLADIUM, RHODIUM, AND IRIDIUM	
	METHODS FOR THE SEPARATION OF PLATINUM, PALLADIUM, RHO- DIUM, AND IRIDIUM FROM ONE ANOTHER AND FOR THEIR GRAVI-	283
656.	METRIC DETERMINATION Raleigh Gilchrist AN EXAMINATION OF WATER FROM VARIOUS NATURAL SOURCES FOR VARIATIONS IN ISOTOPIC COMPOSITION.	291
657.	Edward W. Woshburn and Edgar R. Smith Some Experiments with Pure-Metal Resistance Standards.	305
658. 659.	James L. Thomas REPRODUCIBILITY OF THE ICE POINTJames L. Thomas KINETICS OF REACTION BETWEEN SILVER BROMIDE AND PHOTO-	313 323
660.	GRAPHIC SENSITIZERSBurt H. Carroll and Donald Hubbard Sources of Error in Measuring Opacity of Paper by the Con-	329
661.	TRAST-RATIO METHOD	345
662.	Joseph R. Branham TEST OF A FLAT STEEL-PLATE FLOOR UNDER LOADS.	353
663.	L. B. Tuckerman, A. H. Stang, and W. R. Osgood PORTABLE DETECTOR FOR RADIUML. F. Curtiss	363 379
	DETERMINATION OF SMALL AMOUNTS OF ZINC IN STEELS AND IRONS. H. A. Bright THERMAL EXPANSION OF BEARING BRONZESPeter Hidnert	383 391
000.	Vol. 12—April 1934—No. 4	991
666.	STANDARD ABSORPTION CURVES FOR SPECIFYING THE QUALITY OF	
667.	X-Radiation Lauriston S. Taylor and George Singer Thermal Expansions of Some Soda-Lime-Silica Glasses as	401
	FUNCTIONS OF THE COMPOSITION. B. C. Schmid, A. N. Finn, and J. C. Young	421
	APPARATUS FOR MEASURING THERMAL CONDUCTIVITY OF METALS UP TO 600 C	429
	THERMAL CONDUCTIVITY OF SOME IRONS AND STEELS OVER THE TEMPERATURE RANGE 100 TO 500 CS. M. Shelton	441
670.	COMPARATIVE PERFORMANCE OF WATCHES WITH ELINVAR AND WITH STEEL HAIRSPRINGS	451
671. 672.	FIRST SPECTRUM OF TANTALUM	459
673.	Herbert Insley and Francis W. Glaze THE CARBONIZATION PROCESS: A STUDY OF THE SYSTEM WOOL—	471
	SULPHURIC-ACID—WATER Milton Harris COMPRESSION CUTTING TEST FOR RUBBER W. L. Holt	475 489
675.	Wear of Dies for Extruding Plastic Clay	501
	Vol. 12—May 1934—No. 5	
	FREEZING POINT OF RHODIUM	519
678.	H. T. Wensel, D. B. Judd, and Wm. F. Roeser A Propeller-Vibration Indicator.	527
679.	Hugh L. Dryden and L. B. Tuckerman Hosiery Testing Machine.	537
680.	Herbert F. Schiefer and William D. Appel Significant Vapor Pressure Considerations of the Vapor Pressure Considerations of the Vapor State of the Vapor Pressure Considerations of the Vapor State of the Vapor Pressure Consideration of the Vapor Pr	543
681.	MANOMETRIC METHOD OF GAS ANALYSIS	551 567
682.	EFFECT OF EXPERIMENTAL CONDITIONS ON THE MEASUREMENT OF	587
683.	AIR PERMEABILITY OF PAPER F. T. Carson A STUDY OF THE PROPERTIES OF MORTARS AND BRICKS AND THEIR RELATION TO BOND L. A. Palmer and D. A. Parsons	609
684.	HEAT OF HYDRATION OF PORTLAND CEMENT PASTES. Wm Leach and R H Roque	645

	Vol. 12—June 1934—No. 6	
695	An Absolute Determination of the Ampere.	Page
000.	Harvey L. Curtis and Roger W. Curtis	665
686.	CALORIMETRIC DETERMINATION OF THE HEATS OF COMBUSTION OF	
	ETHANE, PROPANE, NORMAL BUTANE, AND NORMAL PENTANE. Frederick D. Rossini	735
687.	STUDY OF THE SYSTEM CAO-SiO ₂ -H ₂ O AT 30 C AND OF THE REACTION	199
••••	OF WATER ON THE ANHYDROUS CALCIUM SILICATES.	
200	E. P. Flint and Lansing S. Wells	751
688.	PREECE TEST (COPPER-SULPHATE DIP) FOR ZINC COATINGS. Edward C. Groesbeck and H. H. Walkup	785
689.	IODINE NUMBER OF WOOL: A METHOD FOR DETERMINING THE	100
	ACTION OF VARIOUS CHEMICAL REAGENTS ON WOOL AND OTHER	
coo	PROTEINS_Milton Harris, Harvey A. Neville, and William C. Fritz	803
090.	PROPERTIES OF WHITE BRAILLE PAPERS FOR LIBRARY OF CONGRESS PUBLICATIONS	811
	INDEX TO VOLUME 12 (JANUARY TO JUNE 1934—RESEARCH PAPERS	011
	630 то 690)	817

Contents of Volume 12

VII

 \bigcirc





